

6DM4

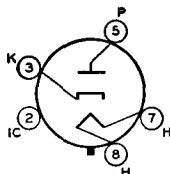
Refer to chart at end of section.

6DM4A

17DM4A

HALF-WAVE
VACUUM RECTIFIER

Glass octal type used as damper tube in horizontal-deflection circuits of television receivers. Outlines section, 13G; requires octal socket. Socket terminals 1, 2, 4, and 6 should not be used as tie points. This tube, like other power-handling tubes, should be adequately ventilated. Type 17DM4A is identical with type 6DM4A except for heater ratings.



4CG

	6DM4A	17DM4A	
Heater Voltage (ac/dc)	6.3	16.8	volts
Heater Current	1.2	0.45	amperes
Heater Warm-up Time (Average)	—	11	seconds

Damper Service

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage#	5000	volts	
Peak Plate Current	1200	mA	
Average Plate Current	200	mA	
Plate Dissipation	6.5	watts	
Heater-Cathode Voltage:			
Peak value	+300	—5000	volts
Average value	+100	—900	volts

Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

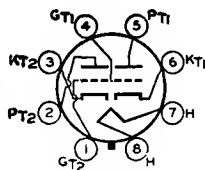
6DN6

Refer to chart at end of section.

6DN7

MEDIUM-MU DUAL TRIODE

Glass octal type used as combined vertical-deflection-oscillator and vertical-deflection-amplifier tube in television receivers. Outlines section, 13B; requires octal socket. Heater: volts (ac/dc), 6.3; amperes, 0.9; maximum heater-cathode volts, ± 200 peak, 100 average.



8BD

Class A₁ Amplifier

CHARACTERISTICS	Unit No.1	Unit No.2	
Plate Voltage	250	250	volts
Grid Voltage	—8	—9.5	volts
Amplification Factor	22.5	15.4	
Plate Resistance (Approx.)	9000	2000	ohms
Transconductance	2500	7700	μ mhos
Plate Current	8	41	mA
Grid Voltage (Approx.) for plate current of 10 μ A	—18	—	volts
Grid Voltage (Approx.) for plate current of 50 μ A	—	—23	volts

Vertical-Deflection Oscillator and Amplifier

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)	Unit No.1	Unit No.2	
DC Plate Voltage	350	550	volts
Peak Positive-Pulse Plate Voltage#	—	2500	volts
Peak Negative-Pulse Grid Voltage	400	250	mA
Peak Cathode Current	—	150	mA
Average Cathode Current	—	50	mA
Plate Dissipation	1	10	watts

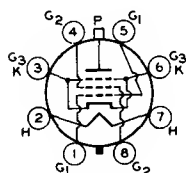
MAXIMUM CIRCUIT VALUES

Grid-Circuit Resistance:			
For fixed-bias operation	2.2	2.2	megohms
For cathode-bias operation	2.2	—	megohms

Pulse duration must not exceed 15% of a vertical scanning cycle (2.5 milliseconds).

Refer to chart at end of section.

6DQ4



8JC

BEAM POWER TUBE

6DQ5

Glass octal type used as horizontal-deflection amplifier in color and black-and-white television receivers. Outlines section, 21B; requires octal socket.

Heater Voltage (ac/dc)	6.3	volts
Heater Current	2.5	amperes
Heater-Cathode Voltage:		
Peak value	±200 max	volts
Average value	100 max	volts
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.5	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3	23	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3	11	pF

Class A₁ Amplifier

CHARACTERISTICS

	Pentode Connection	Triode* Connection	
Plate Voltage	70 175	125	volts
Grid No.2 (Screen-Grid) Voltage	125 125	—	volts
Grid No.1 (Control-Grid) Voltage	0 -25	-25	volts
Amplification Factor	—	3.3	
Plate Resistance (Approx.)	— 5500	—	ohms
Transconductance	— 10500	—	μmhos
Plate Current	550* 110	—	mA
Grid-No.2 Current	42* 5	—	mA
Grid-No.1 Voltage (Approx.) for plate mA = 1	— -55	—	volts

* Grid No.2 connected to plate.

* These values can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

Horizontal-Deflection Amplifier

For operation in a 525-line, 30-frame system

MAXIMUM RATINGS (Design-Maximum Values)

DC Plate Voltage	990	volts
Peak Positive-Pulse Plate Voltage#	6500	volts
Peak Negative-Pulse Plate Voltage	1100	volts
DC Grid-No.2 (Screen-Grid) Voltage	190	volts
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage	250	volts
Peak Cathode Current	1100	mA
Average Cathode Current	315	mA
Grid-No.2 Input	3.2	watts
Plate Dissipation*	24	watts
Bulb Temperature (At hottest point)	220	°C

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance, for grid-resistor-bias operation	0.47	megohm
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Pulse duration must not exceed 15% of a horizontal scanning cycle (10 microseconds).

* A bias resistor or other means is required to protect the tube in absence of excitation.

